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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/915,727

07/26/2001

Ralph J. Locke

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8203

7590

01/07/2004

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EXAMINER

FULLER, ERIC B

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 01/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
09/915,727	LOCKE ET AL.	
Examiner	Art Unit	
Eric B Fuller	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s): _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 and 13-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "tight" and "well-defined" in the independent claims are relative terms that render the claim indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. The dictionary definition of "tight", as provided by the applicant, is "set close together". However, "close" is also a relative term. It is still not known how close the coating must be set in order to qualify as "tight", as it pertains to the applicant's claims. Applicant has previously argued that the reference fails to teach "tight" and "well-defined". If the applicant wishes to pursue this argument further, a degree of tightness and definition must be established that would show it to be not as tight and defined as the reference would infer.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 33-35, 37-41, 43, 45, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Primeaux, II et al.

Primeaux teaches an elastomer coating material for use as an interior lining of rail cars. As the reference is open to all rail cars and does not limit itself to only cargo carrying rail cars, the reference reads on any rail car that would benefit from an impact and abrasive coating that is flexible to withstand the flexing of the rail car. This certainly reads on rail cars that may carry a passenger.

The coating material comprises an amine-terminated polyether polyol (column 4, lines 43-45) having a molecular weight greater than about 1500 and an amine equivalent weight greater than about 750 (column 4, lines 43-52) and an isocyanate compound (column 3, line 16). When mixed, these materials react to form a polyurea and cures substantially instantaneously (column 10, lines 13-28). The materials are mixed such that predetermined tensile strength, hardness, and flexibility are achieved (column 2, lines 49-67). Since the reference is applying the material to a large substrate such as a rail car and no means are taken to heat or cool the car, the reference reads on applying the material to the substrate at ambient temperatures and

pressures. The flexibility of the coating reads on attenuating vibration (column 2, lines 35-40). Additionally, since the coating taught by Primeaux is the same as the coating claimed by the applicant, and both are applied by spray methods onto similar substrates, it would be inherent that the coating of Primeaux would act to attenuate vibration, noise, and harshness.

As to claim 35, the amine-terminated polyether polyols taught by Primeaux read on polyoxalene polymers. As to claim 41, Primeaux teaches the use of chain extenders (abstract, column 5, line 53). As to claim 43, Primeaux teaches the use of pigments in the material (column 8, lines 26-29). As to claim 45, Primeaux teaches that an organic silane compound may be added in order to increase adhesion of the material (column 9, line 26). As to claim 47, column 3, lines 50-58, and column 8, lines 38-52, show that the isocyanate compound may consist of an isocyanate quasi-prepolymer based on a uretonimine modified MDI and a high molecular weight polyether polyol. The table in column 8 shows that that the isocyanate content in this form is between 0 and 65%. The 2,4'-isomer content should be at least 30% of this. The taught ranges are inclusive of the applicant's claimed ranges.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 13-20, 22-29, 36, 42, 44, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Primeaux, II et al. (US 5,962,618).

Primeaux teaches an elastomer coating material for use on a substrate. The coating material comprises an amine-terminated polyether polyol (column 4, lines 43-45) having a molecular weight greater than about 1500 and an amine equivalent weight greater than about 750 (column 4, lines 43-52) and an isocyanate compound (column 3, line 16). When mixed, these materials react to form a polyurea and cures substantially instantaneously (column 10, lines 13-28). The materials are mixed such that predetermined tensile strength, hardness, and flexibility are achieved (column 2, lines 49-67). Since this reference is applying the material to a large substrate such as a rail car and no means are taken to heat or cool the car, this reference reads on applying the material to the substrate at ambient temperatures and pressures. The flexibility of the coating reads on attenuating vibration (column 2, lines 35-40). Additionally, since the coating taught by Primeaux is the same as the coating claimed by the applicant, it would be inherent that the coating of Primeaux would act to attenuate vibration, noise, and harshness. As to claim 1, the reference fails to teach that the coating is applied in a manner that produces a tight, well-defined application pattern. However, to apply the coating at least tight enough and defined enough to perform the desired function of a flexible impact resistant coating would have been obvious at the time the invention was made to a person having ordinary skill in the art. By doing so, one would control the

distribution of the impact resistance property that the coating supplies to the surface of the substrate (column 2, lines 60-65).

As to claims 6 and 7, Primeaux teaches, by way of examples, that the amount of each compound in the material effects the cure time. The examples show cure times as low as less than 10 seconds and as high as 45 second and the compositions that are required for each. It is the Examiner's position that this reference is inclusive of cure times in between 10 and 45 seconds.

As to claims 8, Primeaux teaches to coat the interior of a rail car, which is conventionally made of metal stampings.

As to claim 9, although Primeaux fails to specifically teach that the substrate is a body in white, it is the position of the examiner that it would have been obvious to apply the coating of Primeaux to any substrate that would benefit from having additional abrasion and impact resistance.

As to claims 10 and 11, Primeaux teaches a high pressure, impingement mix spray system (column 8, lines 53-65).

Claim 13 is similar to claim 1, except that the "amine-terminated polymer" of claim 1 is replaced with a "polyoxalene polymer". However, the according to applicant's claim 16, the amine-terminated polyether polyols taught by Primeaux are polyoxalene polymers. Thus this claim is rejected for the reasons stated in claim 1.

As to claims 14 and 42, Primeaux teaches the use of chain extenders (abstract, column 5, line 53). Although Primeaux fails to explicitly teach the addition of fillers to the material, it does teach that fillers are commonly used in similar mixtures to increase

hardness (column 2, line 6). To add fillers to the material taught by Primeaux would have been obvious at the time the invention was made to a person having ordinary skill in the art in order to increase the hardness of the compound.

As to claims 15 and 44, Primeaux teaches the use of pigments in the material (column 8, lines 26-29). Primeaux fails to teach the use of a catalyst, specifically because the reaction and cure times are relatively small all ready. However, one skilled in the art would recognize the addition of a tertiary amine to the material would allow the reaction involving an amine-terminated polymer to occur even faster. The motivation to do so would be to achieve even faster reaction and cure times.

As to claims 16 and 36, Primeaux teaches to use polyether polyols, but is silent on the specific types. However, to use a di-, tri-, quad-, or penta- functional polyether polyol would have been obvious at the time the invention was made to a person having ordinary skill in the art with the reasonable expectation of success.

As to claim 17, column 3, lines 50-58, and column 8, lines 38-52, show that the isocyanate compound may consist of an isocyanate quasi-prepolymer based on a uretonimine modified MDI and a high molecular weight polyether polyol. The table in column 8 shows that that the isocyanate content in this form is between 0 and 65%. The 2,4'-isomer content should be at least 30% of this. The taught ranges are inclusive of the applicant's claimed ranges.

As to claims 18, 19, and 46, an alkylene carbonate is used as a plasticizer in the material (column 4, line 23). To select any of the applicant's claimed plasticizers would have been obvious as they are all alkylene carbonates.

Claim 20 is similar to claims 1 and 13, but adds the limitation of the isocyanate compound having at least one NCO radical that is reactive with the first components. From table 1 and 4, and the examples, Primeaux teaches the use of the NCO radical that is inherently reactive with the first component.

As to claim 22, the average molecular weights given in column 4, lines 25-68, are between 1,000 and 4,000. Applicant's range is inclusive of these values.

As to claim 23, Primeaux teaches that an organic silane compound may be added in order to increase adhesion of the material (column 9, line 26).

Claims 24 and 25 contain limitations that have been previously rejected. These claims are rejected for the same reasons.

As to claims 26-29, these claims are rejected for the same reason as claims 16-19.

Claims 21 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Primeaux, II et al. (US 5,962,618) in view of Xiao et al. (US 6,153,709).

As to claim 21 and 30, Primeaux teaches to use aliphatic diamines as the chain extenders. However, Primeaux fails to explicitly teach a filler. Xiao teaches that talc is a common filler for materials such as these two coatings (column 3, line 18-38). Since, the two references share the same broad constituents and require similar characteristics, one skilled in the art would realize that the the filler in Xiao would impart the same desirable characteristics to the material taught by Primeaux. Therefore, to use talc as a filler for the material taught by Primeaux would have been obvious at the

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time the invention was made to a person having ordinary skill in the art in order to control viscosity, rheology, shelf stability, specific gravity, and cured performance properties.

Additionally to claim 30, Primeaux teaches that the amine terminated-polymer can be in the form of a diol (column 4, lines 30-35) with average molecular weights between 1,000 and 3,000. This is inclusive of applicant's "about 2,000".

The limitations of claim 31 have all been previously rejected to in other claims. The claim is therefore rejected to for the same reasons.

As to claim 32, Primeaux teaches that the adhesion promoter may be epoxy alkoxy silane (column 7, lines 45-55).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No.

6,291,019 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because all the limitations presented in the present claims are met by the claims of the patent. The differences are obvious variants of one another.

Response to Arguments

Applicant argues that the terms "tight" and "well-defined" are not relative. In support, the applicant has provided dictionary terms and states that one of ordinary skill in the art would understand the scope of the claims with "a reasonable degree of clarity". This argument is not found convincing. The dictionary definitions used contain relative terms in them as well. Additionally, the applicant has previously argued that the coating in the reference was not tight and not well defined. Examiner maintains that the coating would at least have a degree of tightness and definition that would allow it to perform the desired function, which would read on tight and well defined. Since the applicant disagreed, ambiguity must exist in the relative terms "tight" and "well defined". The applicant has not provided any support for an interpretation of "tight" and "well defined" that would distinguish it from the prior art.

Applicant argues that the claims 33-47 require a passenger vehicle and that Primeaux is limited to hopper cars. Additionally, a declaration has been filed that states that Mr. Primeaux intended the patent to be drawn to hopper cars and not passenger vehicles. This argument and corresponding declaration has been considered, but is not found convincing. Patentability is based on what one skilled in the art would interpret, having read the reference, not what the inventor intended to mean. In no instance does

the Primeaux reference "limit" the rail cars to be hopper rail cars. Although examples are given in which the rail cars are not intended for passengers, the reference does not limit itself to such an embodiment (column 15, lines 30- 37). One skilled in the art would interpret "rail cars" to mean any car that rides on the rails and would interpret the reference to be applying the coating to any rail car that would benefit from an abrasion and impact resistant coating that is capable of withstanding the flexing of the rail car. A rail car that holds passengers is subject to flexing and would benefit from an abrasion and impact resistance coating. Therefore, "rail cars" as interpreted by one reading the patent issued to Mr. Primeaux, would include rail cars that may carry passengers, thus reading on "passenger vehicle".

Additionally, the limitation of the substrate requiring a passenger is a limitation that is drawn to an intended use for the product of a method claim. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Certainly a rail car is capable of carrying passengers and no manipulative difference in the process of making has been claimed.

Further, as the applicant's arguments are drawn to the patentability of the intended use of the product that results from the claimed method, this confuses the

metes and bounds of the claims. If a rail car is used for carrying livestock or is used for transporting people/persons (as has been done in the past), would this infringe the applicant's claims? If applicant wishes to pursue patentability on the basis of the substrates being different, then a more clearly defined difference in substrates must be claimed.

Applicant argues that the present invention allegedly presents a new method of use for known compounds and therefore inherency is immaterial. The applicant has cited statutory and case law in support. Additionally, it is argued that one would not realize the benefits of Primeaux and apply them to a passenger vehicle. The examiner has considered and acknowledges these arguments and supporting law. However, the argument is found unconvincing. It is noted that claims 1-32 only require a substrate, not a passenger vehicle. It is the position of the examiner that the applicant has not claimed a new method of use for the compounds of the present invention. Both the reference and the claims teach applying the same coating to a substrate. Both the compounds in the claims and in the reference are mixed, sprayed on to the substrate at ambient conditions, and allowed to cure. The methods of using the compounds are the same. All the limitations besides "tight and well defined", which has been shown to be obvious, are taught by the reference. Therefore, the process is not a new process. Because the claimed method steps are not new, "attenuating vibration, noise, and harshness" is merely an additional benefit to an all ready known process. The courts have decided, "The mere observation of still another beneficial result of an old process cannot form the basis of patentability." *In re Allen et al. v. Coe*. 57 USPQ 136.

Applicant states that the combination of Primeaux in view of Xiao et al., with respect to claims 21 and 30-32, is moot in view of the arguments of Primeaux alone. Applicant additionally notes that the art of record fails to anticipate or make obvious the invention of these claims. However, no supporting arguments have been given. Therefore, the examiner maintains the rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck, can be reached at (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



EBF



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700